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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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27833	7590	01/03/2005	EXAMINER	
TECHNOLOGY, PATENTS AND LICENSING, INC. 6206 KELLERS CHURCH ROAD PIPERSVILLE, PA 18947			VARTANIAN, HARRY	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,661

Applicant(s)

SAY, SABIT

Examiner

Harry Vartanian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,14-17,34,36,39,41,44,46 and 52-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,14,15,34,36,39,41,44,46 and 52-55 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 14-17, 34, 36, 39, 41, 44, 46 and 52-55 are pending.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the amended claims state that the first and second transmitter use the same downstream and upstream frequencies which must be shown in the CORRECTED figure 4 filed on 9/20/2004 or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the first and second transmitter using the same downstream and upstream frequencies as

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described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claim 36 is objected to because of the following informalities: it is dependent on a cancelled claim. For any rejections below, it is assumed that the claim should be dependent on claim 34. Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified

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or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1, 14-15, 34, 36, 41, 44, 52, and 54 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7, 10-11 of copending Application No. 09783020. Although the conflicting claims are not identical, they are not patentably distinct from each other because in claims 7 and 10-11 in application 09783020 claim using "the downstream bands of the first pair of frequency band associated to each transmission line" by two different remote transmitters to the first transceiver(claim 11). This configuration is the mirror image of the applicant's claims wherein the use of downstream bands by two transmitters are done at the central office rather than the client or remote site. The applicant further specifies that the transmission line is "twisted pair" and the lower downstream band is within the "DSL frequency plan". The lower downstream DSL frequency is met by application 09783020 since the intended use of the invention is for xDSL, and a lower frequency claimed in 11 would fall within the range of a DSL frequency range. Moreover, VDSL typically use the same lower frequency range as any xDSL system.

Therefor application 09783020 does not specifically claim the use of the configuration in the conflicting claims on the client side and a twisted pair transmission line.

However, it would have been obvious to one skilled in the art at the time of the invention to use the two transmitter lower frequency configuration on the client side since it

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has been held that a mere reversal of the essential working parts of a system involves only routine skill in the art. in re Einstein, 8 USPQ 167.

Moreover, it would have been obvious to one skilled in the art at the time of the invention to use a twisted pair transmission line in a DSL system. The motivation to combine is that it is well-known in the art that twisted pair is the transmission line used in almost all DSL systems.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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2. Claims 1, 14-15, 34, 36, 39, 41, 44, 46, and 52-55 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al(US Patent# 6,731,678). Regarding Claims 1, 14-15, 34, 52, and 54, White et al discloses a DSL system wherein:

"the communication link **may consist of any two communication devices that are connected by two or more separate "band limited" communication paths** for the transmission of information there between...the communication devices use a **"frequency split scheme" to divide the information transmitted between the devices into two or more signals**, each of which is transmitted over one of the communication paths. A "frequency foldback scheme" may also be used to shift the information from the higher frequencies **to the lower frequencies** of each respective signal, **thereby taking advantage of the fact that more information can be carried in the lower frequencies**. By using these schemes, it is possible to extend the operating range of the communication link and/or transmit a greater amount of information over the communication paths to thereby increase the bandwidth of the communication link." (Column 3, Lines 29-47)

1,14-17,34,36,39,41,44,46 and 52-55

Figure 4 shows the configuration of the two or more transmitter/receiver method. The use of two pairs of DSL lines going to the **same location**(multiple item 12's) having multiple receiver's is also shown here. Please also see (Column 5, lines 54—59) wherein it is stated that two or more transmitting lines can be used between the central office and the remote location. Regarding Claims 52, the use of multiple upstream signals in a lower frequency range is described in (Column 10, lines 15-26).

Regarding Claim 36, White et al states that in the frequency foldback scheme information on higher subcarriers are shifted to lower subcarriers on multiple twisted pairs, so the two twisted pair lines can be using the same lower frequency.

Regarding Claims 39, 53, and 55 the limitations of the claims are met in (column 2, lines 29-48) wherein the downstream range of 25.875 kHz to 1.104 MHz overlaps the range of 0.138 to 3.75 MHz(PLEASE SEE MPEP 2131.03 section II).

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Regarding Claim 41, the limitations of the claim are met in (Column 5, lines 54—59) and figure 4 wherein it states that two or more twisted pairs can be used for transmission therefor making it a selective option.

Regarding Claim 44, the limitations of the claim are met in figure 4, item 28 since DSLAM's by definition inherently can provide service to multiple locations. In this case, they may do so by allocating more than one line to each location.

Regarding Claim 46, the limitations of the claim are met in (column 7, lines 14-20) wherein he states that using two twisted pair lines can extend the DSL range from 13.5 kft to 15.11 kft, which is greater than the 3000 ft stated in the specification of the application as a possible definition of "close proximity".

Allowable Subject Matter

3. Claims 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 571.272.3048. The examiner can normally be reached on 10:00-6:30 Mondays to Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571.272.3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry Vartanian
Examiner
Art Unit 2634

HV



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800